Compromise Approach for Predictive Control of Timed Event Graphs with Specifications Defined by P-time Event Graphs

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Résumé en anglais	In this paper, the aim is to make the predictive control of a plant described by a Timed Event Graph which follows the specifications defined by a P-time Event Graph. We propose a compromise approach between the ideal optimality of the solution and the on-line application of the computed solution when the relevant optimal control cannot be applied for a given computer. The technique is based on a reduction of the number of iterations of the fixed point algorithm such that the computed control remains causal. The analysis of the partial satisfaction of the specifications at each iteration of the algorithm defined in the (max, +) algebra shows that a subset of constraints is guaranteed by the control computed at each iteration while another one is possibly satisfied.
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